

ABSTRACT

High speed high data interconnect apparatus includes a stiffening plate with optical fiber mounting groove defined on a surface thereof. The apparatus further includes a length of optical fiber mounted in the groove on the surface of the stiffening plate in a longitudinally extending direction generally parallel to the surface of the stiffening plate. A reflecting surface is positioned adjacent one, or both, of the opposed ends of the optical fiber to direct light at an angle of approximately ninety degrees to the optical path. A printed circuit board laminate is used to encase the stiffening plate and the optical fiber and includes a light via for the passage of light reflected by the reflecting surface. Bond pads are formed on a surface of the printed circuit board laminate adjacent the light via for the electrical connection of a light element, e.g. a VCSEL or photodiode, in communication with the light via.